

SNB 6003 2 MEGAPIXEL FULL HD NETWORK CAMERA

TECHNICAL SPECIFICATIONS

SECURITY SYSTEM

DIVISION – 28 ELECTRONIC SAFETY AND SECURITY

LEVEL 1 _28 20 00 ELECTRONIC SURVEILLANCE

LEVEL 2 _28 23 00 VIDEO SURVEILLANCE

LEVEL 3 _28 23 29 VIDEO SURVEILLANCE REMOTE DEVICES AND SENSORS

PART 2 – PRODUCTS

2.01 GENERAL

- A. All equipment and materials used shall be standard components that are regularly manufactured and used in the manufacturer's system.
- B. All systems and components shall have been thoroughly tested and proven in actual use.
- C. All systems and components shall be provided with the availability of a toll-free (U.S. and Canada), 24-hour technical assistance program (TAP) from the manufacturer. The TAP shall allow for immediate technical assistance for either the dealer/installer or the end user at no charge for as long as the product is installed.

2.02 SNB 6003 2 MEGAPIXEL FULL HD NETWORK CAMERA

- A. The camera shall be of a bodied type suitable for installation internally or within an external housing. The camera will accept CS or C mount lenses with a Direct Drive Auto Iris. The camera shall be ivory & black in appearance. A C mount adaptor will be included with the product.
- B. The network camera shall feature up to 2 Mega Pixel Full HD (1080p) resolution in a 16:9 format. 4:3 format shall also be available in smaller resolutions.
- C. The camera should be capable of capturing and transmitting an image size of 1920 x 1080 at 60 images per second.
- D. The camera shall be capable of simultaneously streaming two 1080p video streams, each at 30 images per second.
- E. The camera shall include support for P-Iris lens technology to gain the maximum sharpness and depth of field attainable.
- F. The camera shall feature a built in microphone.
- G. The camera shall feature Wide Dynamic Range with a gain of 120db. This feature will work at 30 images per second at 1920 x 1080 resolution. The WDR function shall feature an adaptive motion system to eliminate motion blur.
- H. The camera shall feature a high performance 2D & 3D noise reduction that automatically adapts the type of technology used according to movement in the field of view. 2D noise reduction compares adjacent pixels while 3D technology compares the same pixel in the previous and subsequent images, giving a higher level of detail. When the camera detects movement in a region of the image it will apply 2D noise reduction to that area and 3D noise reduction to the remainder of the image.
- I. The camera shall feature an automatic back light compensation technology that detects and enhances dark areas in the field of view and increases the gain in those areas.
- J. The camera shall feature built in license free video analytics functions including line crossing, appear/disappear, audio detection, camera tamper (scene change) and enter/exit a predefined zone.
- K. The camera shall feature advanced motion detection with definable detection areas, minimum / maximum object size definition and a learning algorithm that ignores false alarms such as trees and waves on water.
- L. The camera shall support Multi Cropping technology to allow video profiles to be set up with a reduced area of the overall field of view of the camera.
- M. The camera shall feature a face detection technology that can be used to create an event whenever there is a face or multiple faces in the image. The technology should be able to detect 32 faces simultaneously.

- N. The camera shall feature 32 privacy zone mask areas.
- O. The camera shall feature a smart codec that can use a higher quality compression for regions of interest in the image, thereby prioritising the encoding of the most important areas of the field of view.
- P. The camera shall feature a Digital Image Stabilisation function.
- Q. The camera shall feature a backlight compensation technology that can be used to manually select an area of high brightness in the field of view and adjust the gain in that area.
- R. The network camera shall provide video transmission in an open format with H.264 or MJPEG compression.
- S. The camera shall support ONVIF profile S for operation with 3rd party systems.
- T. The camera shall be capable of simultaneously transmitting multiple video streams of different resolution, compression, frame-rate and compression settings.
- U. The network camera should be configurable through a built in web server that can be accessed via standard browsers including Internet Explorer, Firefox, Chrome & Safari.
- V. The camera shall feature a line level audio input with an alarm function.
- W. The camera shall feature a line level audio input and output capable of duplex operation.
- X. The cameras shall support micro SD, SDHC & SDXC flash memory card for recording video footage on event, network loss or continuously.
- Y. The camera shall provide a customizable on-screen display (OSD) which shall be available in English, French, German, Spanish, Italian, Chinese, Korean, Russian, Japanese, Swedish, Danish, Portuguese, Turkish, Polish, Czech, Romanian, Serbian, Dutch, Croatian, Hungarian, Greek, Finnish, Norwegian.

2.03 CAMERA

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|----------------------|--|
| A. Imaging Device | 1/ 2.8" 2M PS Exmor 2.38M CMOS |
| B. Total Pixels | 1,952(H) x 1,116(V) |
| C. Effective Pixels | 1,944(H) x 1,104(V) |
| D. Scanning System | Progressive |
| F. Min. Illumination | |
| 1. Color | 0.1 Lux (F1.2, 50IRE), 0.0017Lux (30fps 2sec, 50IRE) |
| 2. B/W | 0.01 Lux (F1.2, 50IRE) |
| G. S / N Ratio | 50dB |
| H. Video Output | CVBS : 1.0 Vp-p / 75Ω composite, 704x480(N), 704x576(P), for installation - DIP connector type |

2.04 LENS TYPE

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|------------------|-------------------------------|
| A. Lens Type | Manual / DC Auto Iris, P-Iris |
| B. Mount Type | C/CS |
| C. Focus Control | Manual |

2.05 OPERATION

| | |
|-------------------------------------|--|
| A. Camera Title | Off / On (Displayed up to 45 characters) |
| B. Day & Night | Auto (ICR) / Color / B/W / External / Schedule |
| C. Backlight Compensation | Off, BLC, WDR |
| D. Wide Dynamic Range | Off, / On (120dB) |
| E. Contrast Enhancement SSSDR | On, Off |
| F. Digital Noise Reduction SSNR III | On, Off |
| G. Motion Detection | Off / On (4ea 4 Points Polygonal zones) |
| H. Privacy Masking | Off / On (32ea Rectangular zones) |
| I. Sens-up (Frame Integration) | Off, Auto (2x ~ 60x) |
| J. Gain Control | Off / Low / Middle / High / Manual |
| K. White Balance | ATW / AWC / Manual / Indoor / Outdoor |
| L. Electronic Shutter Speed | Minimum / Maximum / Anti flicker (2 ~ 1/12,000sec) |
| M. Flip / Mirror | Off, On |
| N. Intelligent Video Analytics | Tampering, Virtual Line, Enter/Exit, Appear / Disappear, |

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|------------------------------|---|
| O. Alarm I/O | Audio Detection, Face Detection |
| P. Alarm Triggers | Input 1ea / Output 1ea Motion detection, Tampering, Audio Detection, Face Detecton, Video Analytics, Alarm Input, Network Disconnection |
| Q. Alarm Events | File upload via FTP and E-Mail Notification via E-Mail, local storage(SD/SDHC/SDXC) recording at Network disconnected & Event (Alarm Triggers), External output |
| R. Defog | Auto/Manual/Off |
| S. Serial Interface | RS-485- Samsung-T/E, Pelco-D/P, Sungjin |
| 2.06 NETWORK PROTOCOL | |
| A. Ethernet | RJ-45 (10/100Base-T) |
| B. Video Compression Format | H.264(MPEG-4 part 10/AVC), MJPEG |
| C. Resolution | 1920x1080 /1600x1200/ 1280x1024 /1280x960 / 1280x720 / 1024x768 / 800x600 / 800x450 / 640x480 / 640x360 / 320x240 / 320x180 |
| D. Max. Framerate | Max 60fps at all resolutions |
| 1. H.264 | 1920x1080 /1600x1200/ 1280x1024 /1280x960 / 1280x720 / 1024x768 : Max. 15 fps |
| 2. Motion JPEG | 800x600 / 800x450 / 640x480 / 640x360 / 320x240 / 320x180 : Max. 30fps |
| E. Video Quality Adjustment | Compression level, Target bit rate level control |
| 1. H.264 | Quality level control |
| 2. MJPEG | |
| F. Bitrate Control Method | CBR or VBR |
| 1, H.264 | VBR |
| 2. MJPEG | Multiple Streaming (Up to 10 Profiles) |
| G. Streaming Capability | Mic(Line) in / Line out (1Vrms), Built-in Mic. |
| H. Audio I/O | G.711 u-law /G.726 Selectable |
| I. Audio Compression Format | G.726 (ADPCM) 8KHz, G.711 8KHz |
| | G.726 : 16Kbps, 24Kbps, 32Kbps, 40Kbps |
| J. Audio Communication | Bi-directional audio |
| K. IP | IPv4, IPv6 |
| L. Protocol | TCP/IP, UDP/IP, RTP(UDP), RTP(TCP), RTCP,RTSP, NTP, HTTP, HTTPS, SSL, DHCP, PPPoE, FTP, SMTP, ICMP, IGMP, SNMPv1/v2c/v3(MIB-2), ARP, DNS, DDNS, QoS, PIM-SM, UPnP, Bonjour |
| M. Security | HTTPS(SSL) Login Authentication Digest Login Authentication IP Address Filtering User access Log 802.1x Authentication |
| N. Streaming Method | Unicast, Multicast |
| O. Max. User Access | 15 users at Unicast mode |
| P. Memory Slot | SD/SDHC/SDXC - motion Images recorded in the SDX/SDHC/SD memory card can be downloaded. |
| Q. ONVIF Conformance | Yes, Profile S |
| R. Webpage Language | English, French, German, Spanish, Italian, Chinese, Korean, Russian, Japanese, Swedish, Denish, Portuguese, Turkish, Polish, Czech, Rumanian, Serbian, Dutch, Croatia, Hungary, Greek, Finnish, Norwegian |

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| S. Web Viewer | | |
| 1. Supported OS | | Windows XP / VISTA / 7 / 8, MAC OS X 10.7 |
| 2. Supported Browser | | Microsoft Internet Explorer (Ver. 7~10), Mozilla Firefox (Ver. 9~19), Google Chrome (Ver. 15~25), Apple Safari (Ver. 6.0.2(Mac OS X 10.8, 10.7 Only), 5.1.7) * Mac OS X Only |
| 3. Central Management Software | | SmartViewer, SSM |
| 2.07 | ELECTRICAL | |
| A. Voltage | | AC24V±10%, DC12V±10%,PoE(IEEE802.3af,Class3) |
| B. Consumption | | Max. 12.5W (AC 24V, 50~60Hz) Max. 10.5W (DC 12V) Max. 12.0W (PoE, Class3) |
| 2.08 | ENVIRONMENTAL SPECIFICATIONS | |
| A. Operating Temperature | | -10°C ~ +55°C (14°F ~ 131°F) |
| B. Operating Humidity | | Less than 90% RH |
| 2.09 | PHYSICAL SPECIFICATIONS | |
| A. Dimension | | W73.1 x H66.6 x D136.2 |
| B. Weight | | 330g |
| C. Color | | FRONT (BLACK) , BODY (IVORY) / FRONT(Aluminium), BODY(Plastic) |
| 2.10 | CERTIFICATIONS | |
| A. CE mark | | |
| B. FCC mark | | |
| 2.11 | WARRANTY | |
| A. 3 years, parts and labor. | | |